

**B.Sc. 6th Semester (Honours) Examination, 2023 (CBCS)**

**Subject : Zoology**

**Course : DSE-3**

**(Animal Behaviour)**

**Time: 2 Hours**

**Full Marks: 40**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

**Group-A**

1. Answer *any five* questions of the following: 2×5=10
- (a) What do you mean by 'intrasexual' and 'intersexual' selection?
  - (b) Distinguish between habituation and sensitization with suitable example.
  - (c) Define 'inclusive fitness' with an example.
  - (d) What do you mean by 'Kin Selection'?
  - (e) How does learning differ from instinct?
  - (f) Define 'Sign Stimulus' with an example.
  - (g) What do you mean by 'photic' and 'non-photic' zeitgeber?
  - (h) What do you mean by 'sexual conflict' in parental care?

**Group-B**

2. Answer *any two* questions of the following: 5×2=10
- (a) Explain the phenomenon of 'Fixed Action Pattern' (FAPs) behaviour with an example.
  - (b) Explain Filial and Sexual imprinting with example.
  - (c) Comment on endocrine control of bird migration. Discuss the adaptive significance of bird migration. 3+2
  - (d) Explain the phenomenon of 'eusocial behaviour' in honeybee.

Group-C

3. Answer any two questions of the following:

10×2=20

- (a) Define stereotype behaviour. Write down the differences between taxis and kinesis. Explain different types of kinesis with example. 2+3+5
- (b) Define altruism. Explain the altruistic behaviour in honeybee. Add a note on reciprocal altruism. 2+5+3
- (c) Discuss with suitable diagram the role of Supra Chiasmatic Nucleus in circadian rhythm. Give one example of circadian rhythm in human and an invertebrate animal. Write short note on imprinting. 3+2+5
- (d) Elaborate the concept of associative learning. Comment on the cost and benefit of group living. 6+4

(3)

SH-VI/ZOOH/DSE-3/23

**B.Sc. 6th Semester (Honours) Examination, 2023 (CBCS)**

**Subject : Zoology**

**Course : DSE-3 (OR)**

**(Wildlife Conservation)**

**Time: 2 Hours**

**Full Marks: 40**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**Group-A**

1. Answer *any five* questions of the following:

2×5=10

- (a) What do you mean by 'pug marks'? Write its significance.
- (b) What is 'compensation level' in aquatic system?
- (c) Define community reserve. Give an example.
- (d) What is absolute density?
- (e) Write the full form of CITES and IBWL.
- (f) Define setting back succession.
- (g) What do you mean by 'ecotourism'?
- (h) What do you mean by 'endemic species' Give example.

**Group-B**

2. Answer *any two* questions of the following:

2×5=10

- (a) What is grazing system? Describe continuous grazing system. 1+4
- (b) What is carrying capacity? State the method of estimation of carrying capacity. 2+3
- (c) Write a short note on 'Indian Wildlife Protection Act, 1972'.
- (d) Write a short note on 'Project Tiger'.

Group-C

3. Answer *any two* questions of the following: 10×2=20
- (a) Define Wildlife conservation. Explain different methods *in situ* wildlife conservation. 2+8
- (b) What do you mean by 'human-animal conflict'? Explain cause and consequences of human-animal conflict. Describe the process of mitigation of such conflict. 2+5+3
- (c) How effective population size is measured where sex ratio is not equal? Write down the negative impacts of ecotourism in protected areas. 4+6
- (d) Define Biodiversity. How genetic diversity can be preserved? Explain the methods of restoration of degraded habitats. 2+4+4
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